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ABSTRACT

An analysis examined changes in participation in vocational education and training and in schooling and higher education in Australia. It drew principally on data from the Youth in Transitions study. Participation estimates were based on information from four cohorts of young people. Members of each cohort initially completed multiple-choice tests in reading comprehension and mathematics and then completed an annual mail questionnaire focused on participation in education and the labor market. Participation was compared when members of the cohorts were aged 19 in 1980, 1984, 1989, and 1994. Types of educational participation identified were year 12 completion, technical and further education (TAFE), apprenticeship, higher education, and post-school education and training. Results indicated substantial growth in most forms of post-compulsory education; a year 12 completion rate that more than doubled in the 14 years spanned by the cohorts; substantial increase in participation in TAFE programs; declining participation in apprenticeships; and nearly doubled participation in higher education. In a reversal, in the most recent cohort, young people from blue-collar families were more likely to participate in TAFE than those from other families. The wealth profile of apprentices declined marginally over time. In the mid-1990s, young people from the wealthiest quartile were somewhat less likely to enter apprenticeships. (YBL)

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WORKING PAPER NO. 29
September 2000

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# Analysis of longitudinal data: participation in VET

## PARTICIPATION IN EDUCATION AND TRAINING

The decision by young people to participate in courses in vocational education and training occurs in a context of alternative forms of further education as well as pathways that lead to and from vocational education and training. This context has changed dramatically during recent decades. Hence we examine both the changes in participation in vocational education and training and the corresponding changes in participation in schooling and higher education. We draw principally on data from the *Youth in Transition* study, but supplement this with selected statistics from other sources.

### *Youth in Transition*

Our estimates of participation in education and training are based on information from four cohorts of young people in the *Youth in Transition* program. Members of the oldest of these cohorts were born in 1961, the next in 1965, the third in 1970, and the most recent and youngest, in 1975. Members of each cohort initially completed multiple-choice tests in reading comprehension and mathematics and then completed an annual mail questionnaire that focused on participation in education and the labour market.

### Types of Participation

We compare the participation in education and training when members of the four groups were aged 19 in 1980, 1984, 1989 and 1994 respectively. In the usual course of events, the overwhelming majority of young people will have begun their transition from school to further education and training by age 19.

We identify the following types of educational participation:

**Year 12 Completion.** Completion of Year 12 refers principally to completion of the highest level of secondary schooling available. The overwhelming majority of young people in our samples undertook Year 12 in a secondary school. Some, however, completed their schooling in a Technical and Further Education (TAFE) institute. Although it was the case for only a small minority of students in the more recent cohorts, increasingly co-operation between schools and TAFE colleges has allowed young people to complete a Year 12 course that combined elements of courses taught in both institutions. Such students are also considered as having completed Year 12. Our measure requires participation at the end of the school year. *Completion* does not necessarily imply successful completion -- the measure is based ultimately on students' self reports of having completed Year 12.

**TAFE (non-apprenticeship).** The release of the *Kangan Report* in 1975 is considered a watershed for technical education in Australia -- 'It placed TAFE as a broadly based vocational education and training sector, rather than a more narrow vocational skilling sector.' (Smith & Keating, 1997: p. 9). Commonwealth Government funding helped the sector to expand during the late 1970s and early 1980s. Despite relatively recent moves to encourage private providers of vocational education and training (VET), the government-supported TAFE colleges remain the major providers of VET in Australia, and certainly were during the period covered by this study.

The VET sector probably has greater diversity than the higher education sector. It offers courses covering almost every conceivable area of education and training in all industries. Courses range from recreational courses requiring only a few hours of instruction to three year Diploma and Advanced Diploma courses in professional disciplines such as accountancy. TAFE colleges also took a leading role during the late 1980s in the provision of labour market programs funded by the Commonwealth Government. There was a wide variation in award nomenclature during much the 1980s, and the generic term *Certificate* described a range of outcomes. Our measures are restricted to persons who described themselves as undertaking a Certificate, Associate Diploma, Diploma or (in very rare instances) Degree course in a TAFE college. Recreational enrolments are relatively rare among young people up to age 19 and were not included in our measures where they could be identified.

The implications of the Kangan report for the VET sector were worked out gradually during the 1980s. Towards the end of the decade and into the 1990s a series of proposals, collectively referred to as the *Training Reform Agenda,* began to take shape. These include such concepts as *training markets, competency based training, registered training providers* and *national recognition of skills* which were given an administrative home with the creation of the Australian National Training Authority in 1994. These changes, however, were introduced too recently to have had very much impact on even our youngest cohort.

**Apprenticeship.** Entry-level workplace training was for a long period identified with the term apprenticeship -- a contract of training between an employee and an employer. The arrangement provides work-experience, off-the-job training (usually at a TAFE college), employment, a government subsidy for the employer and a qualification in a recognised trade after three or four years. In many senses, apprenticeships are an ideal pathway from school to the workforce. The problem with apprenticeships, however, was that they were oriented towards the declining manufacturing sector and, with some notable exceptions such as hairdressing, absent from the expanding service and retail sectors. They also provided only limited opportunities for females.

*Traineeships* were proposed as the solution to this problem. They were to be more flexible than apprenticeships, of shorter duration, in different industries and occupations, but similar in concept. The *Australian Traineeship System* was initiated in 1986. Various modifications or adjuncts followed: Career Start Traineeships, the Australian Vocational Training System and the National Employment and Training Taskforce (NETTFORCE). Commencements remained modest until after 1994, when

numbers increased sharply -- an increase attributed by Smith and Keating (1997: p 80) to the success of NETTFORCE in removing institutional impediments to the employment of trainees and the provision of training. Our measures of apprenticeship participation include participants in traineeships. They make only a modest contribution to our estimates for the 1970 and 1975 cohorts.

**Higher Education.** The higher education sector has been substantially restructured during the period covered by the four cohorts. There are three major changes that have affected the measurement of participation in higher education. First, from 1985 nurse education was progressively transferred from hospitals to universities. The transfer has contributed to an increase in teenage participation of about one percentage point, though the effect has been greater for the participation rates of females (DEETYA, 1997: p. 14). Second, in 1989 the higher education sector changed from a binary system consisting of universities and colleges of advanced education (CAEs) to the Unified National System (UNS) which consists only of universities. The amalgamation of many institutions in order to meet the minimum enrolment requirements of the UNS means that it is difficult to report participation rates for anything other than the sector as a whole. Third, somewhat in anticipation of the creation of the UNS, there was a gradual upgrading of many undergraduate qualifications within the CAEs from diplomas and associate diplomas to degrees. Consequently it is often not very meaningful to examine changes over time in the level of participation in particular types of academic program. We therefore consider only one undifferentiated outcome -- any form of participation in higher education.

A small part of higher education enrolment is in TAFE colleges. These enrolments are not treated as participation in higher education in this report. Instead they are included in TAFE non-apprenticeship enrolments.

**Post-School Education and Training.** This category consists of persons who participated in higher education, TAFE, apprenticeships, or traineeships, as well as a small group of persons who participated in some other form of post-school study for a recognised qualification. For the first two cohorts, initial nurse education, which was then conducted at hospitals, was included in this category. Persons attending private business schools comprised most of the remainder of the *Other* category. Participation in this category, however, is not simply the sum of participation in each of the component categories -- persons can participate in more than one form of post-school education and training and hence there is overlap.

## Measures of Participation

The educational participation rates presented in this report can be interpreted directly as the percentage of a given cohort who participate in a particular form of education. As such, these rates differ from most other published statistics. *Participation* in this report means *ever-in* whereas education participation more usually means *participation in the reference year* or *at a given point in time*. Put differently, our results use the longitudinal structure of our data, whereas many other studies are only able to present a cross-sectional picture. For an individual to be recorded in this report as having participated in an apprenticeship *by* age 19, they do not need to have participated *when* they were age 19. The respondent could have been an apprentice when he or she was age 17 and then not continued with the apprenticeship. For our purposes, that individual is still recorded as having participated in an apprenticeship.

In order to emphasise the spread of years in which the educational activity may have occurred for a cohort, we refer to the early 1980s, the mid 1980s, the late 1980s and the mid 1990s respectively.

**Table 1 Year 12 Completion and Selected Forms of Educational Participation by Age 19: 1980, 1984, 1989 and 1994**

| Cohort born in . . . | 1961 | 1965 | 1970 | 1975 |
|---|---|---|---|---|
| At age 19 in . . . | 1980 | 1984 | 1989 | 1994 |
| | % | % | % | % |
| ***Panel A: Completion and Participation Rates*** | | | | |
| *Year 12 completion* | 35 | 37 | 55 | 78 |
| *TAFE (non-apprenticeship)* | 13 | 16 | 18 | 20 |
| *Apprenticeships inc. traineeships* | 18 | 18 | 18 | 14 |
| *Apprenticeships* | 18 | 18 | 16 | 12 |
| *Traineeships* | -- | -- | 2 | 3 |
| *Higher education* | 20 | 19 | 28 | 38 |
| *Post-school education & training* | 49 | 56 | 65 | 67 |
| *Sample size* | 3433 | 2867 | 1775 | 3215 |
| ***Panel B: Participants with Year 12*** | | | | |
| *TAFE (non-apprenticeship)* | 43 | 34 | 44 | 75 |
| *Apprenticeships inc. traineeships* | 14 | 5 | 24 | 47 |
| *Apprenticeships* | 14 | 5 | 19 | 41 |
| *Traineeships* | -- | -- | 63 | 69 |
| *Higher education* | 88 | 96 | 100 | 100 |
| *Post-school education & training* | 51 | 47 | 65 | 83 |

**See *Notes to Tables***

In the normal course of events it is reasonable to expect ever-in estimates to be higher than any corresponding cross-sectional estimate. However, a countervailing influence will lead to lower estimates of participation. The participation estimates in this report are based on whether the respondent had ever participated in a particular form of education or training in *October* of a given year. Using October as a benchmark involves substantial under-enumeration of total participation. For those courses that run for a full calendar year (as many tertiary courses do), our participation measures will fail to record the participation of students who enrolled but discontinued before October of that year. This makes our estimates more measures of *substantial* participation. This effect, will, however, lead to lower estimates than those based on reported enrolments earlier in the calendar year.

The problem is greater, however, for courses of shorter duration. Participation in even a one-semester course in the first half of the calendar year will not be included. Many Certificate II courses offered in the VET sector have precisely this structure. Students leave school at the end of one calendar year and enrol (typically) in a Certificate II course in TAFE at the start of the next calendar year. The course is completed by June and the student exits post-school education without their participation having been recorded.

Ours is not the only survey to encounter these difficulties. There is, for instance, a substantial difference in estimates of participation in the vocational education and training system derived from enrolment data and estimates from the ABS monthly surveys. Much of this difference can be attributed to the fact that enrolments reflect participation at any time in the year while the ABS surveys report participation in a given week.

In short, the definition of post-school participation as being *ever-in* a given form of education by age 19 leads to *higher* estimates than those based on cross-sectional surveys. Using *October* as the reference month for participation leads to *lower* estimates than those provided by some other survey or administrative sources. It is not clear, for any particular estimate, which will be the stronger influence.

## Estimates of Participation

Panel A of Table 1 shows rates of participation in education and training for the four *Youth in Transition* cohorts. The major features of the results in Panel A are:

- There is substantial growth in most forms of post-compulsory education.
- Year 12 completion rates more than doubled in the 14 years spanned by the four cohorts of the survey. In the early 1980s just over a third of the cohort completed Year 12. After little growth during the mid 1980s, by the late 1980s more than a half of the cohort completed Year 12 and by the mid 1990s more than three quarters of the cohort completed Year 12.
- Participation in TAFE programs (excluding apprenticeships and traineeships) also increased substantially and more or less uniformly from the early 1980s (13%) to the mid 1990s (20%).
- Participation in apprenticeships declined by about a third -- from 18% for the oldest cohort to 12% for the youngest cohort. The introduction and growth of traineeships from the late 1980s compensated for some of this decline. Nevertheless, this was not sufficient to arrest the overall decline in participation in employment-based education and training by young people.
- Participation in higher education nearly doubled. A fifth of young people participated in higher education in the early 1980s, but by the mid 1990s this had increased to just under two fifths.
- The overall effect of these changes has been a substantial growth in the participation of young Australians in post-school education and training. In the early 1980s about a half of school leavers participated in post-school education by age 19. By the mid 1990s two-thirds of the youngest cohort participated in some form of post-school education and training by age 19.

An important issue for entry-level training is the skills and experience that young people bring with them when they commence a course. The values in Panel B show that the percentage of participants in TAFE (non-apprenticeship) courses and in apprenticeship courses who have already completed Year 12 has increased substantially. The percentage of participants in TAFE (non-apprenticeship) programs with Year 12 has increased from 43% at the start of the 1980s to 75% in the mid 1990s despite a decline in the mid 1980s. The pattern for participants in

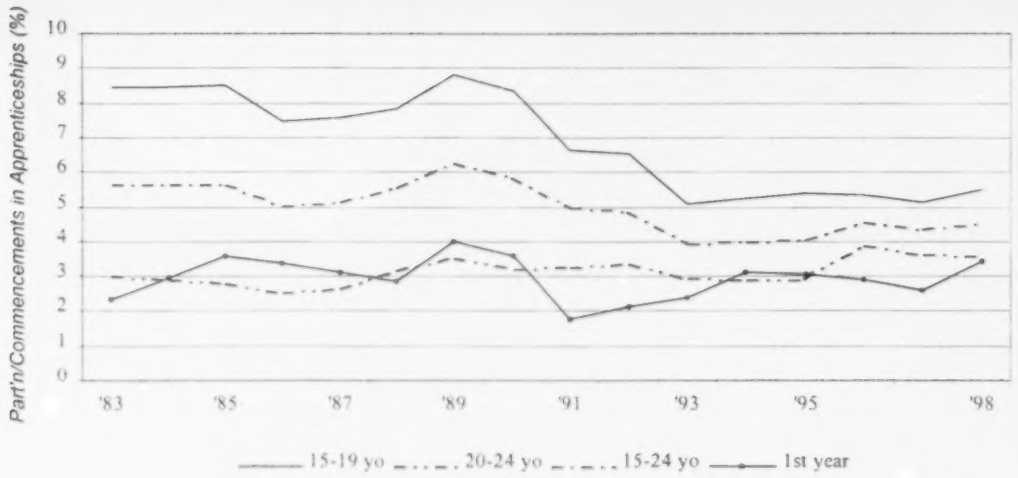



**Figure 1 Apprenticeship Participation Rates, 15 to 19, 20 to 24 and 15 to 24 Year-olds, and First Year Apprenticeship Participation Rates, 15 to 19 Year-olds: Australia 1983-1998**

Source: *Transition from Education to Work* ABS Cat. No. 6227.0.

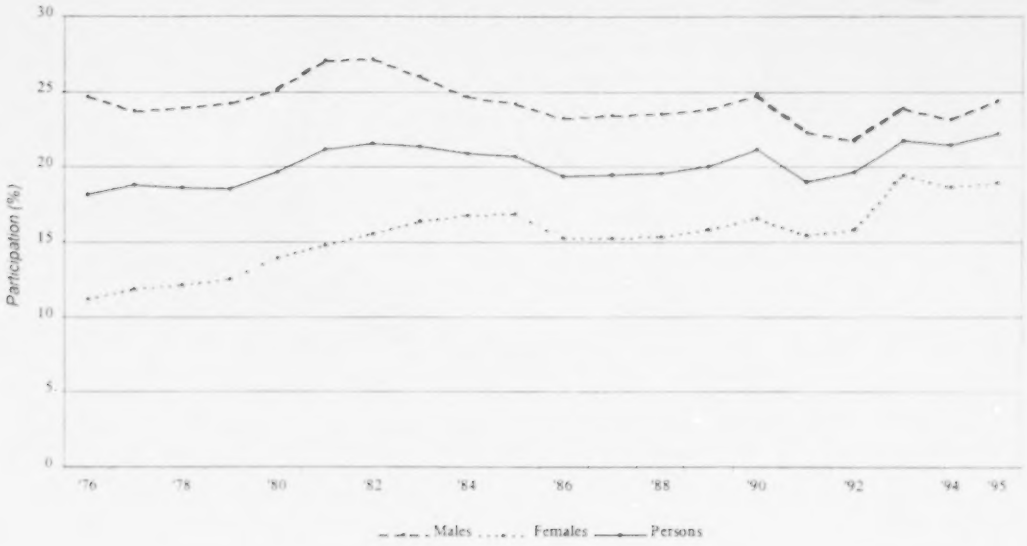
apprenticeships is similar -- the percentage of Year 12 graduates nearly tripled over the 14 years spanned by the cohorts after declining substantially in the mid 1980s.

## Other Sources

Figure 1 shows two series of results for apprenticeships. The first series consists of the rate of participation of 15 to 19 year-olds, 20 to 24 year-olds, and 15 to 24 year-olds. The participation rates of 15 to 19 year-olds shows quite substantial changes. After remaining fairly stable at between 7.5% and 8.5% for much of the 1980s, it peaked at 8.8% in 1989 and then declined markedly during the next few years before stabilising at just over 5.0%. Participation rates for 20 to 24 year-olds appeared to be insulated against these changes -- they were relatively stable at around 3.0% for much of the period, only increasing to around 4.0% after the mid 1990s.

The change (and stability) in these rates is the result of several confounding factors. The values in Figure 1 show that participation rates for apprenticeships declined for the 15 to 24 year-old group as a whole (which contains the overwhelming majority of apprentices). For the 20-24 year-old group the decline in apprenticeships was offset by the increasing tendency for apprenticeships to be undertaken after completion of Year 12 (see Table 1) and hence to be undertaken by older candidates. This change also reduced participation rates for the 15 to 19 year-old group. At the same time, some apprenticeships became longer. This increased participation rates (without increasing the proportion of any cohort undertaking apprenticeships) principally for the 20 to 24 year-old group.

Figure 1 also shows the percent of the 15 to 19 year-old age group who were in their first year of an apprenticeship, a value we will term *apprenticeship entry rates*. The




participation rate for *all* apprenticeships is a moving average over several years because it includes young people in the first, second, third, fourth and fifth years of

**Figure 2 Apprenticeship and Traineeship Commencements as a Percentage of Persons Aged 15 to 19 Years: Australia 1981-1997**

Source: *Apprenticeship Statistics 1984-85 1993-94*, NCVER and unpublished statistics.
ANTA, unpublished papers.
*Nettforce Update*, November 1996.
*Australian Demographic Statistics*, ABS Cat. No. 3101.0.

their apprenticeships. Entry rates for apprenticeships, however, reflect annual changes in the number of new apprenticeships -- hence they are more volatile. Although the absolute changes are small, usually only one or two percentage points, the relative changes are quite large. Between 1989 and 1991, for instance, entry rates halved from about 4% to less than 2%.

The values in Figure 1 show a recovery from quite low entry rates in the early 1980s to a peak in 1989, followed by a substantial decline during the recession of the early 1990s and a subsequent recovery. The very substantial annual changes in entry rates for apprenticeships are often not reflected in the values in Table 1. Certainly the values for the most recent cohort do show the substantial decline in apprenticeship entry in the early 1980s. Results for the other cohorts, however, both average values across several years and seem to have missed the peaks and troughs of entry rates.

There are clear and acknowledged links between apprenticeship commencements (and continuance) and the business cycle. There is therefore a volatility in apprenticeship participation rates that is not evident in the participation rates of other forms of education. Hence it is important to examine time series data over several decades before advancing opinions on whether apprenticeships are declining in importance as a pathway from school to work for young Australians.

Figure 2 displays some further features of the changes in participation in apprenticeships and traineeships. The values are drawn from administrative records and are for persons entering into a formal contract of training, that is, persons

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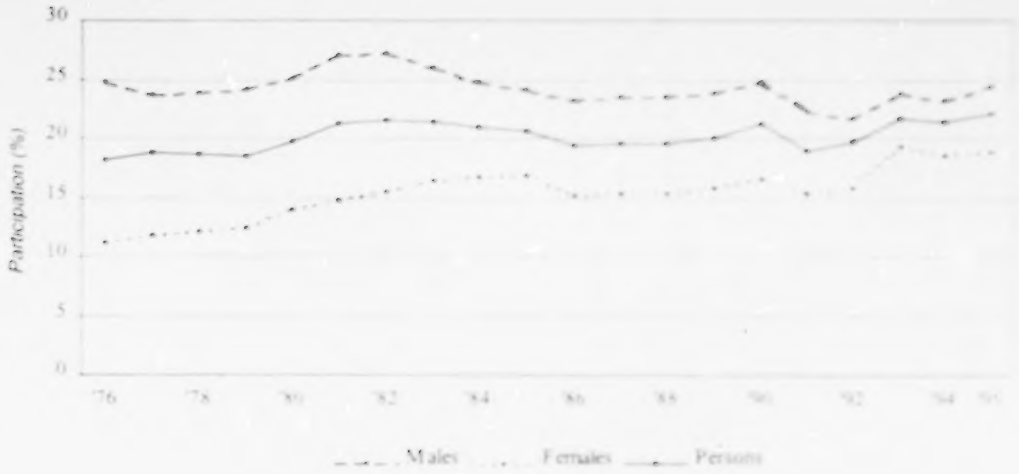


**Figure 3 TAFE Enrolments as a Percentage of Persons Aged 15 to 19 Years: Australia 1976-1995**

Source: *Selected TAFE Statistics, various years*
*Selected VET Statistics, various years*
*Australian Demographic Statistics*, ABS Cat. No. 3101.0

commencing either an apprenticeship or (from 1985-86) a traineeship. These are displayed separately and in total as percentages of the 15 to 19 year-old population.

The values in Figure 2 are generally somewhat higher than the corresponding first year enrolments shown in Figure 1, possibly because some commencers have discontinued before being interviewed for the ABS surveys. The series in Figure 2 starts two years earlier than in Figure 1 and suggests that 1983 was a low point in apprenticeship commencements and perhaps therefore not a good year to select as a base for comparisons. The other major features of the pattern are similar -- a peak in commencements in 1989-90 followed by a sharp decline in the early 1990s. Interestingly, this series also shows a substantial recovery in apprenticeship commencements through the mid 1990s back to levels that prevailed throughout much of the 1980s.

The major feature of Figure 2 is the growing importance of traineeships. Participation in traineeships was relatively low during the late 1980s, a result that corresponds with the estimates in Table 1. It was not until the mid 1990s that participation in traineeships began to increase substantially and this growth is therefore not reflected in values for our most recent cohort.

**TAFE.** Published data are not available in a sufficiently disaggregated form to allow the presentation of teenage participation rates in non-apprenticeship TAFE courses for a consistent time-series. Figure 3, however, shows that participation in TAFE courses overall has increased modestly from the late 1970s to the mid 1990s. We can put this result together with the results from Figures 1 and 2 which showed a decline in apprenticeship participation in this age group and conclude that

participation in non-apprenticeship TAFE has probably increased slightly through much of the 1980s and increased further in the 1990s.

The values in Table 1 suggest a somewhat stronger increase in participation in non-apprenticeship TAFE. The two sets of results, however, are more consistent than may be apparent. If participation in TAFE for teenagers is increasingly after the completion of Year 12, even constant cross-sectional participation rates may be consistent with a higher percentage of each cohort participating in non-apprenticeship TAFE -- and that is what is being measured in Table 1.

## SCHOOL ACHIEVEMENT AND PARTICIPATION

A unique feature of the *Youth in Transition* project is the availability of information about respondents' scores on multiple-choice reading, mathematics and other tests. For two of the samples -- the 1961 and 1975 cohorts -- the tests were administered by their schools when respondents were 14 years old. For the other two samples -- the 1965 and 1970 cohorts -- the tests were administered when respondents were 10 years old.

Members of each cohort were categorised into achievement quartiles based on their combined score on these tests. This categorisation is used in Table 2 which shows the percentage of respondents from each quartile who participate in TAFE (non-apprenticeship) courses and the percentage who participate in apprenticeship courses.

### TAFE

Programs taught in TAFE colleges (other than apprenticeships and traineeships) have progressively tended to attract students from the lower-end of the achievement spectrum over the course of the 14 years covered by the cohorts in this study. In the early 1980s participation in TAFE by the four quartiles was fairly equal, by the mid 1980s participation from the lowest achievement quartile was markedly higher than for the highest achievement quartile, and this difference increased for the two more recent cohorts.

The relative shift in the TAFE participation rates of the highest and lowest school achievement quartiles does not address the changes in the absolute participation rates. The participation rate of respondents from the highest quartile has been more or less constant across the four cohorts during a period in which participation in higher education (particularly from the highest quartile) has increased substantially. In terms appropriate to the modern era of training markets, TAFE has maintained its market share of this client category.

The increase in participation in TAFE has been among members of the other achievement quartiles, particularly among members of the lowest quartile. The members of this group were previously those least likely to participate in post-school education and training. The expansion of TAFE has served to increase the opportunities for this group.

**Table 2 Year 12 Completion and Selected Forms of Educational Participation by Age 19, by School Achievement: 1980, 1984, 1989 and 1994**

| Cohort born in | 1961 | 1965 | 1970 | 1975 |
|---|---|---|---|---|
| At age 19 in | 1980 | 1984 | 1989 | 1994 |
| **Panel A:** ***TAFE (Non-Apprenticeship) Participation*** | | | | |
| Highest 25% | 13 | 12 | 13 | 12 |
| Third quartile | 14 | 16 | 17 | 22 |
| Second quartile | 11 | 16 | 20 | 22 |
| Lowest 25% | 12 | 21 | 26 | 27 |
| **Panel B:** ***Participation in Apprenticeships (inc. Traineeships)*** | | | | |
| Highest 25% | 14 | 11 | 9 | 9 |
| Third quartile | 21 | 17 | 18 | 15 |
| Second quartile | 21 | 22 | 24 | 18 |
| Lowest 25% | 18 | 23 | 25 | 17 |
| **Panel C:** ***Sample Sizes*** | | | | |
| Highest 25% | 886 | 767 | 491 | 988 |
| Third quartile | 955 | 730 | 503 | 900 |
| Second quartile | 848 | 658 | 412 | 736 |
| Lowest 25% | 735 | 661 | 366 | 590 |

**See *Notes to Tables***

## Apprenticeships

There has been some concern about the educational backgrounds of persons entering apprenticeships. Sweet (1991), for instance, claims that the educational background of apprentices had been declining during the 1980s -- despite the tendency for apprenticeships to be undertaken by persons who had complete Year 12. The values in Table 2 lend some support to this suggestion. The participation rate in apprenticeships of members of the highest quartile of school achievement declined during the 1980s relative to the participation rates of the other quartiles. Similarly over the same period the proportion of young people from the lowest achievement quartile who participated in an apprenticeships increased markedly compared with the other three quartiles.

For the most recent cohort, however, this trend is reversed. The decline in overall participation in apprenticeships has had least impact on those taking indentures among the highest achievement quartile. Compared with the late 1980s, there was no decline for this quartile. Participation in apprenticeships from the lowest two achievement quartiles, however, contracted markedly. The net result is relative rates of participation somewhat closer to those in the early and mid 1980s.

This should not be wholly unexpected. As the number of available apprenticeships declined, competition among candidates increases. If the selection process is in some way influenced by literacy and numeracy skills acquired in school, then those with lower skills should be less likely to obtain apprenticeships -- and this is what appears to have happened. It is an open question as to whether this apparent improvement in the school achievement profile of apprenticeship participation would be maintained if

there is a return of overall participation in apprenticeships to the levels that prevailed in the 1980s.

## Discussion

The vocational education and training sector has placed considerable emphasis on efficiencies that result from the recognition of prior learning and the articulation of courses. The results in Tables 1 and 2 and Figures 1 to 3 prompt several observations.

First, the expansion of post-compulsory education means that there is more competition for students. The vocational education and training sector is facing stronger competition from schools and universities for students. An emphasis on the unique features of the vocational education and training sector may be an appropriate response by the sector.

If entry to further education and training is more or less on the basis of secondary school achievement, then young people continuing their education and training are more likely to be recruited from lower in the achievement distribution of students. Table 2 shows that this is the case for participants in TAFE (non-apprenticeship) courses. The decline in participation for apprenticeship courses, however, has offset any decline in the most recent cohort.

There are several implications for the VET sector. One response is to note that skills are multi-dimensional and to pay more attention to assessing the skill requirements of courses and matching these requirements with the aptitudes and skills of applicants. Hence it might be beneficial for the VET sector (and its clients) if it placed less emphasis on the outcomes of schooling, although investment in assessment may be costly.

The possible changes in the skill-levels of young people entering VET courses may also have consequences for curriculum and course design. If entrants to the VET sector have lower literacy and numeracy skills, courses may need to devote more time to ensuring that suitable levels of competency are achieved in these subjects. It may also be the case that entrants to VET may now be less suited to flexible instruction at the very time that the sector is emphasising a shift in that direction.

The results in Panel B of Table 1 and Figure 1 suggest that there is a countervailing tendency. Recent young entrants to the VET sector are more likely to have completed Year 12 than they were a decade earlier. There are several aspects to this change. First, there are the presumed increases in the literacy, numeracy and other cognitive skills of entrants that result from their additional years of schooling. Second, post-compulsory schooling now provides study in areas that provide a basis for further study in the VET sector -- although such changes gain momentum after our most recent cohort left school. Third, entrants to VET courses from school are likely to be older than in previous years. Not only does this change suggest a possible increase in the maturity of entrants, it may be associated with different expectations and a change in the culture of learning. It is unclear whether the shift of the VET sector for young people to a post-Year 12 qualification may partially offset other changes in the profile of entrants, or contribute further changes that need to be addressed in the provision of entry-level training.

## SOCIAL, EDUCATIONAL AND ECONOMIC ORIGINS

The substantial increase in participation in postcompulsory education during the last two decades has been associated with changes in the social composition of young entrants to the vocational education and training sector. Tables 3 and 4 show the participation rates during that period for characteristics that fit under the general heading *family socio-economic status.*

The socio-economic status of young people cannot be measured by the occupation, education and wealth of the young people themselves. Instead, the interest is in any advantage or disadvantage that may be associated with their family of origin. Tables 3 and 4 show results for three measures -- parent's occupation, parent's education and family wealth. The following definitions are used:

*Parental occupation* is based on the occupational status of the entrant's father because there is a substantial proportion of mothers who are not in paid employment. Where father's occupation was not available, however, we have used the mother's occupation.

*Parental education* is based on the educational attainments of the entrant's mother. Where information was not available on the mother's education, father's education was used.

*Family wealth* is based on a scale derived from household characteristics and the presence of certain major consumer durables in the household. Three categories are identified -- the top 25 per cent of the sample (labelled *wealthy*), the middle 50 per cent, and the bottom 50 per cent of the sample (labelled *poor*).

### TAFE (Non-apprenticeship) Courses

Table 3 shows the changes in the socioeconomic background of participants in TAFE (Non-apprenticeship) courses during the 14 years spanned by the *Youth in Transition* study. The three measures of socioeconomic status show that:

- In the early 1980s young people from professional and white-collar families were more likely to participate in TAFE than young people from blue-collar families. By the mid 1990s this situation had reversed. Growth in participation in TAFE was strongest among young people from blue-collar families. In the most recent cohort, young people from blue-collar families were about one and half times more likely to participate in TAFE than young people from other families.

- In the mid and late 1980s there was little effect of parental education on participation in TAFE programs and in the early 1980s it was the children of parents whose highest educational attainment was secondary school who were more likely to attend TAFE (and the differences among categories was substantially smaller). The results in Panel D, then, indicate that there has been a shift in the early 1990s in the social profile of young people participating in TAFE towards greater participation by young people from lower parental education backgrounds.

- There has been a gradual change in the direction of the relationship between family wealth and participation in TAFE (non-apprenticeship) courses. While participation by young people in the wealthiest quartile has been reasonably stable, participation from the poorest quartile has almost doubled. In the mid 1990s young people from the poorest quartile of family wealth were more likely to participate in TAFE programs than young people from either the wealthiest or middle two quartiles of family wealth. The differences are not large -- 2 percentage points between the poorest quartile and the middle 50% and then a further 3 percentage points between the middle 50% and the wealthiest quartile.

The socio-economic profile of young people participating in non-apprenticeship TAFE courses changed in the period 1980 to 1994. In the early 1980s young people from higher socio-economic backgrounds were more likely to participate in non-apprenticeship TAFE courses than young people from lower socio-economic backgrounds. By the mid 1990s the reverse was true.

**Apprenticeships**

Table 4 shows the changes in the socioeconomic background of participants in apprenticeships during the 14 years spanned by the *Youth in Transition* study. The three measures of socioeconomic status show that:

- Young people from homes in which the parental occupation is classified as *Skilled* are more likely to participate in apprenticeships than other young people. This is a consistent result across all four cohorts. Given that *Skilled* occupations are often those that require an apprenticeship for entrance, and that apprenticeships are a predominantly male activity, these results suggest that sons may be following their father's example. Among the other categories it is difficult to distinguish any clear or consistent relationships within the cohorts. Young people from semi-skilled and, to a lesser extent, clerical families have participation rates towards the upper end of the range. Apprenticeship participation rates for the *Professional* category are relatively low in each cohort.

  In the absence of any consistent pattern among the categories, it is difficult to find trends across years. It is possible to note, though, that the shortage of apprenticeship places in the early 1990s appeared to be associated with a movement towards smaller differences among categories of parental occupation than had existed previously.

- The youngest cohort reflects the most common pattern across the cohorts -- apprenticeship participation rates for the post-secondary category are less than half those for the completed secondary category with the rates for the other two categories somewhere in between. The only major exception to this pattern was in the late 1980s when the apprenticeship participation rate for the *Primary* category was relatively high at 23%. The overall decline in apprenticeships appears to have affected this category of youth quite markedly because by the mid 1990s participation had almost halved to 13%.

- In the early 1980s participation in apprenticeships was somewhat higher among young people from the wealthiest quartile; in the mid and late 1980s participation was higher for the middle 50%; and by the mid 1990s participation was higher

among the three lowest quartiles of family wealth. The absolute differences among categories are often small, but the relative differences are usually somewhat larger.

There were differing effects of the three components of socio-economic status on participation in apprenticeships and traineeships. The children of parents in the *Skilled* occupational category were most likely to participate in an apprenticeship, as were the children of parents in the *Completed secondary* category. The wealth profile of apprentices declined marginally over time and in the mid 1990s young people from the wealthiest quartile were somewhat less likely to enter apprenticeships.

**Table 3 Participation in TAFE (Non-Apprenticeship) Courses by Age 19, by Socioeconomic Status Characteristics: 1980, 1984, 1989 and 1994**

| Cohort born in . . . | 1961 | 1965 | 1970 | 1975 |
|---|---|---|---|---|
| At age 19 in . . . | 1980 | 1984 | 1989 | 1994 |
| **Panel A: *Parent's Occupation*** | | | | |
| Professional | 14 | 18 | 15 | 17 |
| Managerial | 17 | 17 | 15 | 17 |
| Clerical | 13 | 17 | 22 | 18 |
| Skilled | 10 | 14 | 23 | 23 |
| Semiskilled | 10 | 16 | 22 | 25 |
| Unskilled | 10 | 18 | 14 | 21 |
| **Panel B: *Parent's Education*** | | | | |
| Post-secondary | 10 | 16 | 24 | 12 |
| Completed secondary | 15 | 17 | 18 | 22 |
| Some secondary | 13 | 16 | 17 | 20 |
| Primary | 10 | 17 | 20 | 27 |
| **Panel C: *Family Wealth*** | | | | |
| Highest 25% | 16 | 19 | 18 | 17 |
| Second quartile | 13 | 15 | 17 | 20 |
| Lowest 25% | 12 | 13 | 20 | 22 |

**See *Notes to Tables***

**Table 4 Participation in Apprenticeships (inc. Traineeships) by Age 19, by Socioeconomic Status Characteristics: 1980, 1984, 1989 and 1994**

| Cohort born in . . . | 1961 | 1965 | 1970 | 1975 |
|---|---|---|---|---|
| At age 19 in . . . | 1980 | 1984 | 1989 | 1994 |
| **Panel A:** ***Parent's Occupation*** | | | | |
| Professional | 14 | 14 | 8 | 8 |
| Managerial | 18 | 13 | 18 | 14 |
| Clerical | 20 | 18 | 22 | 11 |
| Skilled | 23 | 22 | 28 | 19 |
| Semiskilled | 18 | 22 | 23 | 16 |
| Unskilled | 17 | 20 | 13 | 17 |
| **Panel B:** ***Parent's Education*** | | | | |
| Post-secondary | 10 | 9 | 7 | 9 |
| Completed secondary | 22 | 24 | 20 | 20 |
| Some secondary | 18 | 17 | 17 | 16 |
| Primary | 19 | 14 | 23 | 13 |
| **Panel C:** ***Family Wealth*** | | | | |
| Highest 25% | 21 | 18 | 14 | 12 |
| Second quartile | 18 | 19 | 21 | 15 |
| Lowest 25% | 15 | 13 | 18 | 15 |

See *Notes to Tables*